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Gerald P. Michalak

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COATS & BENNETT/SONY ERICSSON

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SUITE 300

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EXAMINER

MILORD, MARCEAU

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/736,814	Applicant(s) MICHALAK, GERALD P.	
	Examiner Marceau Milord	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1- 26, 49-59, 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al (US Patent No 6230029 B1) in view of Yoo (US Patent No 7120476 B2).

Regarding claims 1, 9-25, Hahn et al discloses a mobile device (fig. 10) comprising: a mobile terminal with an associated housing (col. 3, lines 4-21), a wireless headset (fig. 1; col. 1, line 61-col. 2, line 32; col. 4, lines 16-51; col. 7, line 56- col. 8, line 7).

However, Hahn et al does not specifically disclose the features of a fastener disposed on the housing for mechanically connecting the wireless headset to the housing.

Yoo, on the other hand, discloses a fastener to mechanically connect a wireless headset to a housing of the mobile device (col. 1, line 64-col. 2, line 14; col. 5, line 55-col. 6, line 4; col. 7, line 10-37). Yoo shows in figure 3, a phone headset having a speaker and a microphone which are connected by a connector to form a connected unit, wherein the connected unit forms a

headset. In addition, the connected unit (fastener) could be physically and electrically connected to the handset via a removable cord, or could be a wireless headset device (col. 5, line 55-col. 6, line 4; col. 7, line 10-37). It is clearly stated that Yoo teaches a fastener disposed on the housing for mechanically connect a wireless headset to the housing. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Yoo to the communication system of Hahn in order to provide a phone headset having a microphone and a speaker and providing a connector for connecting the speaker to the microphone.

Regarding claim 2, Hahn et al as modified discloses a mobile device (fig. 10) wherein the wireless headset includes a speaker and a microphone (col. 1, line 61-col. 2, line 13; col. 4, lines 17-35).

Regarding claim 3, Hahn et al as modified discloses a mobile device (fig. 10) wherein the wireless headset is adapted to operate in a first operating mode when mechanically connected to the housing and further wherein the wireless headset is adapted to operate in a second operating mode when mechanically disconnected from the housing (col. 3, lines 4-21; col. 5, lines 25-67)

Regarding claim 4, Hahn et al as modified discloses a mobile device (fig. 10) wherein the wireless headset interfaces with the mobile terminal via a wireless interface when said wireless headset is operating in the second operating mode (col. 5, line 24- col. 6, line 58).

Regarding claim 5, Hahn et al as modified discloses a mobile device (fig. 10) wherein the wireless headset interfaces with the mobile terminal via an electrical interface when said wireless headset is operating in the first operating mode (col. 5, lines 25- col. 6, line 40).

Regarding claim 6, Hahn et al as modified discloses a mobile device (fig. 10) further comprising a first electrical contact disposed on the housing and a second electrical contact disposed on the wireless headset, wherein the first electrical contact electrically connects to the second electrical contact when said wireless headset is operating in the first operating mode (col. 5, lines 1-57).

Claims 7-8 contain similar limitations addressed in claim 1, and therefore are rejected under a similar rationale.

Regarding claim 26, Hahn et al as modified discloses a mobile device (fig. 10) wherein the mobile terminal does not include a speaker and microphone in the housing and therefore is incapable of communicating audible signals with a user except in conjunction with the wireless headset (col. 5, line 25- col. 6, line 67).

Regarding claims 49- 59, 63, Hahn et al discloses a mobile terminal (fig. 10) comprising: a speaker for projecting audible signals to a user; a microphone for receiving audible signals from the user; wherein said speaker and microphone interface with the mobile terminal via an electrical interface when said speaker and microphone are mechanically connected to the mobile terminal (col. 5, line 25- col. 6, line 53); and wherein said speaker and microphone interface with the mobile terminal via a wireless interface when said speaker and microphone are mechanically disconnected from the mobile terminal (fig. 1; col. 1, line 61-col. 2, line 32;col. 4, lines 16-51; col. 7, line 56- col. 8, line 7).

However, Hahn et al does not specifically disclose the features of a wireless headset that is mechanically connected to the mobile terminal; and wherein said speaker and microphone

interface with the mobile terminal via a wireless interface when said speaker and microphone are mechanically disconnected from the mobile terminal

Yoo, on the other hand, discloses a fastener to mechanically connect a wireless headset to a housing of the mobile device (col. 1, line 64-col. 2, line 14; col. 5, line 55-col. 6, line 4; col. 7, line 10-37). Yoo shows in figure 3, a phone headset having a speaker and a microphone which are connected by a connector to form a connected unit, wherein the connected unit forms a headset. In addition, the connected unit (fastener) could be physically and electrically connected to the handset via a removable cord, or could be a wireless headset device (col. 5, line 55-col. 6, line 4; col. 7, line 10-37). The connected unit could be released from the handset via a release means. It means that it could be disconnected from the mobile terminal. It is clearly stated that Yoo teaches a fastener disposed on the housing for mechanically connect a wireless headset to the housing. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Yoo to the communication system of Hahn in order to provide a phone headset having a microphone and a speaker and providing a connector for connecting the speaker to the microphone.

Claim Rejections - 35 USC § 103

3. Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al (US Patent No 6230029 B1) in view of Yoo (US Patent No 7120476 B2) as applied to claims 49-53 above, and further in view of Silvester (US Patent No 7369532 B2).

Regarding claims 60-62, Hahn, Yoo and Silvester disclose everything claimed as explained above except the features of a detector circuit detector circuit to determine a position

of the wireless headset relative to the mobile terminal to determine if the speaker and microphone are mechanically connected to the mobile terminal.

However, Sylvester discloses a method for an audio channel switching headset that includes detection of a plurality of audio sources within communication range of a wireless headset device. Sylvester also shows in figures 9-10, a technique to determine device identification information of a detected audio source device. This wireless device which is a mobile phone includes speaker and microphone detects the position of the device, and a plurality of audio sources within communications range of the wireless device (col. 15, line 28-col. 16, line 43). It is considered that Sylvester discloses the features of a detector circuit detector circuit to determine a position of the wireless headset relative to the mobile terminal to determine if the speaker and microphone are mechanically connected to the mobile terminal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Sylvester to the modified system of Yoo and Hahn in order to provide a wireless headset that includes a detector circuit that can determine the position of the wireless headset relative to the mobile terminal.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1),

(2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 27-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Sylvester (US Patent No 7369532 B2).

Regarding claim 27, Sylvester discloses a mobile terminal (fig. 1) comprising a detector circuit to determine a position of a wireless headset (110 of fig. 1) relative to the mobile terminal (180 or 200 of fig. 1; col. 5, line 62-col. 6, line 42; col. 16, lines 2-23; col. 15, lines 23-56), wherein the mobile terminal automatically establishes a wireless or electrical interface between the mobile terminal (200 or 180 of fig. 1) and the wireless headset (110 of fig. 1) dependent on the determined position (fig. 1-2; figs. 9-11; col. 12, lines 53-col. 13, line 30; col. 16, lines 2-23; col. 15, lines 23-56; col. 17, line 65-col. 18, line 20; col. 19, line 30-col. 20, line 21).

Regarding claim 28, Sylvester discloses a mobile terminal (fig. 1) wherein the wireless interface comprises a short-range wireless network (180 or 200 of fig. 1; col. 5, line 62-col. 6, line 42; col. 16, lines 2-23; col. 15, lines 23-56).

Regarding claim 29, Sylvester discloses a mobile terminal (fig. 1) wherein the short-range wireless network comprises a short-range ad hoc wireless network (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23).

Regarding claim 30, discloses a mobile terminal (fig. 1) wherein the mobile terminal establishes the wireless interface between the mobile terminal and the wireless headset when the detector circuit determines that the wireless headset is mechanically disconnected from the mobile terminal (col. 5, line 39-col. 6, line 26; col. 19, line 45-col. 20, line 32).

Regarding claim 31, Sylvester discloses a mobile terminal (fig. 10) wherein the mobile terminal establishes the electrical interface between the mobile terminal and the wireless headset when the detector circuit determines that the wireless headset is mechanically connected to the mobile terminal (col. 5, lines 30-67; col. 16, line 60-col. 17, line 47).

Regarding claim 32, Sylvester discloses a mobile terminal (fig. 1) wherein the detector circuit determines that the wireless headset is mechanically connected to the mobile terminal when the detector circuit detects electrical current flow between the mobile terminal and the wireless headset (col. 12, lines 53-col. 13, line 30; col. 16, lines 2-23 col. 17, line 65-col. 18, line 20).

Regarding claim 33, Sylvester discloses a mobile terminal (fig. 1) wherein the detector circuit detects electrical current flow between the mobile terminal and the wireless headset by detecting electrical current flow between mobile terminal circuitry and headset circuitry (figs. 9-11; col. 17, line 65-col. 18, line 20).

Regarding claim 34, Sylvester discloses a mobile terminal (fig. 1) wherein the mobile terminal comprises a cellular telephone (180 of fig. 1; col. 5, line 62-col. 6, line 42).

Regarding claim 35, Sylvester discloses a method of selecting a communication interface (fig. 1; figs. 9-11) between a mobile terminal (200 or 180 of fig. 1) and a wireless headset (110 of fig. 1), the method comprising: a headset and automatically selecting (figs. 2A-2B; col. 8, lines 35-64) an electrical-interface operating mode when the wireless headset is mechanically connected to the mobile terminal (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23; col. 15, lines 23-56); and automatically selecting a wireless-interface operating mode when the wireless headset is mechanically disconnected from the mobile terminal (fig. 1; figs. 9-11; col. 5, line 39-col. 6, line 26; col. 16, line 60-col. 17, line 47; col. 19, line 45-col. 20, line 32).

Regarding claim 36, Sylvester discloses a method of selecting a communication interface (fig. 1; figs. 9-11) between a mobile terminal (200 or 180 of fig. 1) and a wireless headset (110 of fig. 1), wherein determining if the wireless headset is electrically connected to the mobile terminal comprises determining if electrical current is flowing between the wireless headset and the mobile terminal (figs. 9-11; col. 17, line 65-col. 18, line 20).

Regarding claim 37, Sylvester discloses a method of selecting a communication interface (fig. 1; figs. 9-11) between a mobile terminal (200 or 180 of fig. 1) and a wireless headset (110 of fig. 1), wherein determining if the wireless headset is electrically connected to the mobile terminal comprises determining if electrical current is flowing between the wireless headset and the mobile terminal (figs. 9-11; col. 17, line 65-col. 18, line 20; col. 19, line 30-col. 20, line 21).

Regarding claim 38, Sylvester discloses a method of selecting a communication interface (fig. 1; figs. 9-11) between a mobile terminal (200 or 180 of fig. 1) and a wireless headset (110 of fig. 1), wherein automatically selecting a wireless-interface operating mode comprises

establishing a short-range wireless network between the mobile terminal and the wireless headset (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23).

Regarding claim 39, Sylvester discloses a method of selecting a communication interface (fig. 1; figs. 9-11) between a mobile terminal (200 or 180 of fig. 1) and a wireless headset (110 of fig. 1), wherein establishing the short-range wireless network between the mobile terminal and the wireless headset comprises establishing a short-range ad hoc wireless network between the mobile terminal and the wireless headset (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23).

Regarding claim 40, Sylvester discloses a mobile device (fig. 1) comprising: a headset (110 of fig. 1); a mobile terminal (200 or 180 of fig. 1), a detector circuit (fig. 9) for determining a position of the headset relative to the mobile terminal (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23; col. 15, lines 23-56); and wherein the mobile device automatically selects one of two operating modes (figs. 2A-2B; col. 8, lines 35-64) responsive to the determined position of the headset (figs. 9-11; col. 12, lines 53-col. 13, line 30; col. 16, lines 2-23; col. 15, lines 23-56; col. 17, line 65-col. 18, line 20; col. 19, line 30-col. 20, line 21).

Regarding claim 41, Sylvester discloses a mobile device (fig. 1) wherein the detector circuit determines the position of the headset by determining if the headset is mechanically connected to or disconnected from the mobile terminal (col. 17, line 65-col. 18, line 20; col. 19, line 30-col. 20, line 21).

Regarding claim 42, Sylvester discloses a mobile device (fig. 1) wherein the detector circuit determines that the headset is mechanically connected to the mobile terminal when the detector circuit detects an electrical current flow between the mobile terminal and the headset (figs. 9-11; col. 17, line 65-col. 18, line 20).

Regarding claim 43, Sylvester discloses a mobile device (fig. 1) wherein the mobile device automatically selects an electrical operating mode when the headset is mechanically connected to the mobile terminal and wherein the mobile device automatically selects a wireless-interface operating mode when the headset is mechanically disconnected from the mobile terminal (col. 5, line 39-col. 6, line 26; col. 19, line 45-col. 20, line 32).

Regarding claim 44, Sylvester discloses a mobile device (fig. 1) wherein the headset is mechanically connected to the mobile terminal when the headset is secured within a recess disposed in at least one side of a housing of the mobile terminal (col. 17, line 65-col. 18, line 20; col. 19, line 30-col. 20, line 21).

Regarding claim 45, Sylvester discloses a mobile device (fig. 1) further comprising: a first electrical contact disposed on a surface of the recess; a second electrical contact disposed on a surface of the headset; and wherein the first electrical contact electrically connects to the second electrical contact when the headset is secured within the recess (col. 11, line 22-col. 12, line 38).

Regarding claim 46, Sylvester discloses a mobile device (fig. 1) wherein the recess frictionally secures the headset to the housing (fig. 1; col. 5, line 49-col. 6, line 26; col. 6, line 55-col. 7, line 8; col. 8, line 40-67).

Regarding claim 47, Sylvester discloses a mobile device (fig. 1) wherein the headset comprises a wireless headset (col. 5, line 62-col. 6, line 42; col. 16, lines 2-23).

Regarding claim 48, Sylvester discloses a mobile device (fig. 1) wherein the mobile terminal comprises a cellular telephone (180 of fig. 1; col. 5, line 62-col. 6, line 42).

Response to Arguments

6. Applicant's arguments with respect to claims 1-63 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. M./

Primary Examiner, Art Unit 2618

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/Marceau Milord/

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